

REMARKS

Claims 3-14 and 16-26 are pending in the application. Claims 3 and 4 are independent claims.

It is proposed that Figures 1 and 2 be added to the application. The drawings find full support in the specification and particularly at page 11, first paragraph and add no new matter to the application. Entry of the proposed new drawings is requested.

In addition, it is proposed that the specification be amended at page 11, first paragraph to add reference numbers, matching the reference numbers provided in the new Figures. In addition, it is proposed that the specification be amended to add a Brief Description of the Drawings. All terms used in the Brief Description of the Invention are set forth in the specification as originally filed, and particularly at page 11, first paragraph. The amendments to the specification do not add new matter. Entry of the proposed amendments is requested.

Claims 3-14 and 16-26 are rejected under 35 U.S.C. 103 as being unpatentable over USP 4759805 to Saruwatari et al., FR 2100817, USP 3730783 to Streel, USP 3255035 to Clough, or AN 115:237352 in view of McGannon (The Making, Shaping and Treating of Steel, United States Steel). The rejection is respectfully traversed in light of the accompanying remarks.

Claims 3 and 4 recite the step of providing at least a portion of an analytical test element that is formed to transport a sample liquid from a sample application site to a determination site. The "sample application site" and "determination site" are defined in the specification as originally filed at page 11, first paragraph. Moreover, the sites are illustrated in new Figures 1 and 2. It is submitted that none of the cited references either alone or in combination with one another disclose or suggest increasing the surface tension of at least one solid object of an analytical test element, as required by the claims 3 and 4.

The rejection proffers that the claimed analytical test element that is formed to transport liquid from site to site reads on the aluminum conductor as disclosed by Saruwatari (col. 1, lines 15-23, for example). That proffer is respectfully traversed. Saruwatari et al. discloses an aluminum conductor that is roughened and a hydrophilic film formed on the roughened surface (see the abstract). Unlike the analytical test

element of the present invention, the aluminum conductor of the UHV transmission line is not formed to transport liquid, but instead can collect water drops for a certain period of time. In that regard, the Examiner's attention is directed to col. 1 lines 15-21, where it is taught that water drops from rainfall can collect on the surface because of the presence of oily material adhered to the conductor surface. As such, it is submitted that Saruwatari teaches away from the analytical test element of the present invention, which is formed to transport a sample liquid from a sample application site to a determination site.

The Examiner's statement that Saruwatari et al., FR 2100817, Streel, Clough, and AN 115:237352 "do not set forth to increase the surface tension of an object by the oxide coating", is acknowledged. The rejection proffers, however, that McGannon discloses the surface tensions vs. oxides in the same field of endeavor. The proffer is traversed.

Regarding the McGannon reference, it is noted that claims 3 and 4 recite the step of providing at least a portion of an analytical test element that is formed to transport a sample liquid from a sample application site to a determination site, the test element including the at least one solid object having a surface. It is submitted that the McGannon reference would not have been available to the inventor at the time the invention was made because McGannon is neither in the field of the claimed endeavor nor is it reasonably pertinent to the specific problem with which the inventors were involved.

McGannon discloses the making, shaping and treating of steel. It is noted that McGannon does not contemplate the increasing of a surface tension of a surface of an analytical test element, but instead addresses "surface tensions of some *liquid* metals and some slags". See, p. 317, column 1, fourth paragraph, *emphasis added*. As such, here is no teaching or suggestion in McGannon of an oxide layer/coating creating tension on a solid substrate surface. In that regard, the Examiner's attention is directed to the temperatures given in the figure legends of McGannon. All of the legends of McGannon disclose surface tensions that have been determined at elevated temperatures with molten materials (fig. 12-109, 1570°C; fig. 12-110, 1400°C; fig. 12-111, 1300-1600°C; fig. 12-112, 1500°C, fig. 12-113 silicate melts, and fig. 12-114 liquid iron).

Accordingly, it is submitted that the making, shaping, and treating of steel at such elevated temperatures is not the same field of endeavor as a method of increasing the

surface tension of at least one solid object of an analytical element formed to transport a sample liquid from a sample application site to a determination site, as recited independently in claims 3 and 4.

Second, it is submitted that McGannon fails to contemplate, let alone suggest an answer to the problem to which the claims pertain. Claims 3 and 4 each relate to increasing the surface tension of at least one solid object of an analytical device, whereby the resulting deposited layer is solid and more hydrophilic than the surface of the solid object.

McGannon neither discloses nor suggest the existence of an analytical element; let alone any problem associated with the hydrophilic nature of its surface. Instead, McGannon addresses metallurgical problems where “some knowledge of the surface tensions of liquid metals, slags and refractory oxides are needed”. See, p. 317, column 1, fourth paragraph. The Examiner’s attention is again directed to the above-recited temperatures. One skilled in the art of analytical devices would not be led to turn to the McGannon reference and its disclosure of surface tensions of some liquid metals and some slags to solve issues related to the hydrophilicity of a surface of such analytical devices. Accordingly, it is submitted that the disclosure of McGannon is not in the same field of endeavor, as that required by claims 3 and 4.

However, even if McGannon were considered to be the same field of endeavor as the claimed invention, it is submitted that it fails to cure the inadequacies of Saruwatari et al., FR 2100817, Streel, Clough, and AN 115:237352. Specifically, it is submitted that there is no disclosure or suggestion in McGannon regarding oxides and surface tension on a surface of an analytical test element. Further, McGannon fails to contemplate the hydrophilic nature of a solid layer relative to the surface on which it is deposited.

Claim 3 requires the steps of “providing at least a portion of an analytical test element that is formed to transport a sample liquid from a sample application site to a determination site, the test element including the at least one solid object having a surface. . . on the surface of the solid object . . . and subsequently applying boiling water or water vapour on the deposited layer, whereby the resulting deposited layer is solid and more hydrophilic than the surface of the solid object”. At most, McGannon discloses, “surface tensions of liquid metals, slags and refractory oxides are needed”. See, p. 317,

column 1, fourth paragraph. One skilled in the art readily appreciates that liquid metals are not solid objects. Further, there is no disclosure or suggestion in McGannon of an analytical test element that is formed to transport a sample liquid from a sample application site to a determination site, nor of a solid deposited layer that is more hydrophilic than the surface of the solid object, as required by claim 3.

Claim 4 requires the steps of “providing at least a portion of an analytical test element that is formed to transport a sample liquid from a sample application site to a determination site, the test element including the at least one solid object having a surface, depositing on the surface a layer . . . and subsequently applying superheated water vapour to the deposited layer, whereby the resulting deposited layer is solid and more hydrophilic than the surface of the solid object.” Again, McGannon merely discloses, “surface tensions of liquid metals, slags and refractory oxides are needed”. See, p. 317, column 1, fourth paragraph. As stated above, one skilled in the art readily appreciates that liquid metals are not solid objects. Further, there is no disclosure or suggestion in McGannon of an analytical test element that is formed to transport a sample liquid from a sample application site to a determination site, nor of a solid deposited layer that is more hydrophilic than the surface of the solid object, as required by claim 4.

FR 2100817 discloses a process for preparing an aluminum-coated steel sheet; Streel discloses a process for treating a coating of aluminum deposited on a metal support (Col. 1 lines 32-34); Clough discloses a tin coated product to provide a laminated thread with resistance to alkaline dyes (Col. 3 lines 12-16); and AN 115:237352 discloses an oxide coating on aluminum and magnesium that eliminates the need for chromate or other chem. conversion coating processes.

Accordingly, Saruwatari et al., FR 2100817, Streel, Clough, and AN 115:237352 in view of McGannon either alone or in combination with one another fail to disclose or suggest a method comprising the steps of “providing at least a portion of an analytical test element that is formed to transport a sample liquid from a sample application site to a determination site, the test element including the at least one solid object having a surface, depositing a layer of at least one element that can be oxidized with water or an alloy that can be oxidized with water on the surface of the solid object to form a deposited layer, and subsequently applying boiling water or water vapour on the

deposited layer, whereby the resulting deposited layer is solid and more hydrophilic than the surface of the solid object”, as recited by claim 3.

Also, none of these references alone or in combination with one another disclose or suggest a method comprising the steps of “providing at least a portion of an analytical test element that is formed to transport a sample liquid from a sample application site to a determination site, the test element including the at least one solid object having a surface, depositing on the surface a layer of at least one element that can be oxidized with water or an alloy that can be oxidized with water and subsequently applying superheated water vapour to the deposited layer, whereby the resulting deposited layer is solid and more hydrophilic than the surface of the solid object”, as recited by claim 4.

Accordingly, it is submitted that the differences between the claimed invention and the cited art, either alone or in combination with one another are such that Applicants’ invention as a whole would not have been obvious to one of ordinary skill in the art at the time the invention was made. It is respectfully contended that the claimed invention meets the test of patentability under 35 U.S.C. 103(a). Entry of the amendments leading to reconsideration of the rejection of the claims and withdrawal of the rejection is respectfully requested.

The claims are believed to be in condition for allowance, and allowance of the application is respectfully requested. It is requested that if necessary, this paper be considered a Petition for Extension of time sufficient to effect a timely response, and that all fees due be charged to Deposit Account Number 50-0877 with reference to (RDID 0041 US).

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(Date)

Respectfully submitted,
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